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10/791,229

03/02/2004

Daniel C. Robbins

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EXAMINER

DISTEFANO, GREGORY A

ART UNIT

PAPER NUMBER

2109

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/791,229

Applicant(s)

ROBBINS ET AL.

Examiner

Gregory A. DiStefano

Art Unit

2109

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/28/2004, 9/2/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the application filed on 3/2/2004.
2. Claims 1-45 have been submitted for examination.
3. The examiner acknowledges the amendment filed on 2/23/2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-6, 8, 10, 11, 14, 16, 17, 23, 25-31, 37, 38, & 41-43 are rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent number 6,731,316, Herigstad et al. hereinafter Herigstad.

5. As per claims 1, 25, 42 & 43 Herigstad teaches the following:

a key-based input component(Fig. 2A, #32) which maps to one or more segments of content displayed on a portable device screen(Fig. 2A, #30), the key-based input comprising any number of numeric keys and non-numeric keys, (abstract), i.e. a visual display for an electronic device is partitioned into regions. Each of the regions is associated with a key on a keypad;

a navigation component that facilitates navigating through the content in part(Fig. 3, #64) according to the input received from the input component(Fig. 3, #62), (abstract), i.e. the keys are associated with the regions such that when a key is selected the selection option associated with the region is chosen;

a mapping component that smoothly transitions a current view(Fig. 4A, #30) to a new or previous view and orients the content and/or the view thereof within the portable device screen(Fig. 4B, #30) based in part on data received from the input component and the navigation component, (column 1, line 59), i.e. after the user selects the numbered key, a more detailed map of the associated region is displayed on the display.

6. Regarding claims 2, 27, & 44, Herigstad teaches the system of claims 1, 25, & 43 as described above, Herigstad further teaches:

a segmentation component that optimizes the division of the content displayed on the screen into one or more segments, (column 3, line 66), the illustrative embodiment logically partitions a display into visually delimited regions. As per claim 27 & 44, the examiner interprets the overall "display" of Herigstad to be a parent view and the "visually delimited regions" to be child views.

7. Regarding claims 3 & 30, Herigstad teaches the system of claims 2 & 25 as described above, Herigstad further teaches:

the segmentation component optimizes the division of the content based on at

least one of the content, author preferences, user preferences, complexity of content, and density(i.e. fewer regions) of content with respect to the display screen, (column 5, line 4), i.e. there may be fewer regions than keys in the keypad(i.e. density of content).

In the example depicted in Fig. 2c, the display 30 for the mobile phone is partitioned solely into three regions 38, 46 and 52 which are associated with the keys 2, 8 and 5, respectively.

8. Regarding claim 4, 26, & 29, Herigstad teaches the system of claims 2 & 25 as described above, Herigstad further teaches:

the segmentation component divides the content displayed on the device screen into up to nine segments, each segment corresponding to a number key on the key based input component, (column 4, line 43), the display 30 shows visual information that is logically partitioned into regions or sections 36, 38, 40, 42, 44, 46, 48, 50 and 52(i.e. 9 regions). Each of the regions or sections is correlated or associated with one of the keys on keypad 32. As per claim 26, the examiner interprets "section 36" to be a first segment and "section 38" to be a second segment.

9. Regarding claim 5, Herigstad teaches the system of claim 2 as described above, Herigstad further teaches:

the segmentation component superimposes a visual cue onto each respective

segment of content which indicates how the current view is segmented into child views, (column 4, line 49), i.e. in the example depicted in Fig. 2A, each of the regions is visually delimited from the other by a border.

10. Regarding claim 6, Herigstad teaches the system of claim 5 as described above, Herigstad further teaches:

The visual cue comprises a numeric cue corresponding to one or more keys on the key-based input component, (column 4, line 57), those skilled in the art will appreciate that text may also be displayed in the regions. This text may include numbers that directly associate the regions with the associated numbered keys on the keypad 32.

11. Regarding claim 8, Herigstad teaches the system of claim 2 as described above, Herigstad further teaches:

the one or more segments are any one of overlapping and equal in dimension, overlapping and not equal in dimension, non-overlapping and equal in dimension, and/or non-overlapping and non-equal in dimension, (column 4, line 47), i.e. the geometric configuration or physical layout of the regions 36-52 corresponds to the geometric configuration and physical layout of the keys on the keypad 32.

12. Regarding claim 10, Herigstad teaches the system of claim 2 as described above, Herigstad further teaches:

the key-based input component comprises number keys of a keypad, (column 4, line 42), i.e. the keys on the keypad 32 are numbered 1-9.

13. Regarding claims 11 & 31, Herigstad teaches the system of claims 10 & 25 as described above, Herigstad further teaches:

a first number key is tapped to zoom in(i.e. more detail) at least a first zoom level to the corresponding segment of content, (column 6, line 11), in the example case depicted in Fig. 4A, suppose that user selects the seven button 76 to obtain a more detailed map of region 74. This more detailed map 78 is depicted in Fig. 4B.

14. Regarding claims 14, 28 & 45, Herigstad teaches the system of claims 11, 27 & 44 as described above, Herigstad further teaches:

any number of non-numeric keys comprises a dedicated toggle children button such that when tapped, a current zoomed in child view is divided up into more than one segments or child views and the current zoomed in child view is now redefined as a parent view for these newly available child views, (column 6, line 13), i.e. This more detailed map 78 is depicted in Fig. 4B. The user then next selects the eight button 80 to obtain more detail for the region 82. This results in still more detailed map 84.

15. Regarding claim 16, Herigstad teaches the system of claim 1 as described above, Herigstad further teaches:

the content comprises multiple levels of detail such that the navigation

component gracefully moves through the various levels of content by way of at least one of the following: zooming in, zooming out, shifting views at any zoom level and while maintaining a current zoom level, shifting a current view to an original focus of interest, and shifting a current view to a previous view, (column 6, line 11), in the example case depicted in Fig. 4A, suppose that user selects the seven button 76 to obtain a more detailed map of region 74. This more detailed map 78 is depicted in Fig. 4B.

16. Regarding claim 17, Herigstad teaches the system of claim 1 as described above, Herigstad further teaches:

the input component comprises one or more soft keys, wherein the functionality of each soft key varies based on any one of underlying content and an application associated with such content, (column 7, line 51), i.e. the service options are displayed on the display (step 180 in Fig. 9). For an example case, depicted Fig. 8, screen 160 is shown on display 30 to itemize the service options. The user then chooses one of the options by selecting an associated key or button (step 182 in Fig. 9). For example, in Fig. 8, the user may press 3 button 166 to select the option associated with the option is then initiated (step 14 in Fig. 9). This sequence may vary depending upon the nature of the service that is selected and the nature of the application.

17. Regarding claim 23, Herigstad teaches the system of claim 1 as described above, Herigstad further teaches:

the content comprises a web-based application, whereby one or more defined areas of the display are not segmented for more detailed viewing, (column 7, line 22), i.e. the programs may include application programs 146 and a web browser 148, (column 5, line 5), i.e. in the example depicted in Fig. 2C, the display 30 for the mobile phone is partitioned solely into three regions 38, 46 and 52 which are associated with the keys 2, 8 and 5, respectively.

18. Regarding claim 27, Herigstad teaches the method of claim 25 as described above, Herigstad further teaches:

The at least two segments are individually child views(i.e. regions) of a parent view(i.e. visual display), the parent view comprises the at least two segments of content, (abstract), i.e. a visual display for an electronic device is portioned into regions.

19. Regarding claim 37, Herigstad teaches the method of claim 25 as described above, Herigstad further teaches:

the at least two keys comprising numeric keys and non-numeric keys, (column 4, line 62), i.e. as shown in Fig. 2B, the present invention is not limited to instances where a numbered keypad is utilized. The keypads may also be associated with other varieties of characters, such as letters.

20. Regarding claim 38, Herigstad teaches the method of claim 37 as described above, Herigstad further teaches:

The numeric keys mapped to content segments such that a first numeric key maps to a first content segment, (column 1, line 44), i.e. each or the regions is associated with one of the keys on the keypad.

21. As per claim 41, Herigstad teaches the following:

a data packet(i.e. WML deck) comprising: information associated with dividing content displayed on a device screen into at least two segments; mapping a key-based input component comprising at least two keys; receiving user-based input regarding at least one segment of the content based in part on the user-based input, (column 6, line 62), WML employs the notion of a "card," which is a single unit of navigation in user interface. For purposes of the present applications, each card is associated with a single display instance for the display on the electronic device. Hence, the map 70 depicted at Fig. 2A is encoded in a single card. Each card may contain information to present to the user, instructions for gathering user input and mechanism for triggering events. WML also employs the notion of a "deck." A deck is a logical collection of WML cards.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 7, 9 & 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herigstad in view of United States Patent Number 6,130,665, Ericsson.

23. Regarding claims 7 & 40, Herigstad teaches the system of claims 5 & 25 as described above. However Herigstad does not explicitly teach the method of displaying said visual cue semi-transparently as recited in claim 7. Ericsson teaches the following:

the visual cue is semi-transparent(i.e. low intensity) to mitigate obstructing a view of the underlying content, (abstract), i.e. display of both the virtual keypad and the input data by representing the virtual keypad and underlying textual data by different colors, character sizes, styles, fonts, intensities, etc.

It would have been obvious to one skilled in the art at the time the invention was made to modify the cue intensity of Herigstad with that of Ericsson because generating overlays to be displayed in a semi-transparent fashion was well known in the art. One skilled in the art would have been motivated to make such modifications because displaying different "layers" of a display with a top layer having a lower intensity aid in the top layer not obscuring the view of the underlying layer.

24. Regarding claim 9, Herigstad teaches the system of claim 1 as described above. However Herigstad does not explicitly teach the method of a touch screen overlay as recited in claim 9. Ericsson teaches the following:

the key-based input component further comprises key-based touch screen

sensors overlaid on the display screen, (column 1, line 66), i.e. a thin overlay, which displays a picture keypad, is positioned on top of the touch screen.

It would have been obvious to one skilled in the art at the time the invention was made to modify the touch screen overlay of Herigstad with that of Ericsson. One skilled in the art would have been motivated to make such modification because using the touch screen overlay conserves display space.

25. Claims 12, 13, 15 & 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herigstad in view of United States Patent number 4,972,319, Delorme.

26. Regarding claim 12, Herigstad teaches the system of claim 11 as described above. However Herigstad does not explicitly teach the method of displaying different segments as recited in claim 12. Delorme teaches the following:

a second number key is pressed and held for a period of time to temporarily display a different segment of content to provide at least one of context and perspective with respect to the previous segment of content, (column 13, line 24), i.e. "scrolling" or "flying" to different lateral "relative viewing positions" to display a different lateral portion of the map is also provided by the present invention.

It would have been obvious to one skilled in the art at the time the invention was made, to modify the scrolling method of Herigstad with that of Delorme. One skilled in the art would have been motivated to make such modifications because it would allow a

user of Herigstad's system to view surrounding segments to gain a better knowledge of segment contents.

27. Regarding claim 13, Herigstad teaches the system of claim 11 as described above. As described in claim 12 above, Delorme teaches a method for "flying to" different segments of a map. Delorme further teaches:

when at the first zoom level, a second number key is tapped to shift to an appropriate sibling segment at the same zoom level, (column 13, line 27), i.e. instead of adding or removing filename characters as in a change of resolution(i.e. zoom), in this instance, the mapping system must be programmed to keep track of filenames of current position(i.e. zoom level) and also, the orderly arrangement of filenames so that the appropriate filenames corresponding to the desired lateral position can be determined. As an example if the user desired to scroll to the right border.

28. Regarding claim 15, Herigstad teaches the system of claim 1 as described above, Herigstad further teaches:

the navigation component facilitates glancing at neighboring or nearby content by temporarily transitioning a current view to a new view and then back to the current view to gain perspective or context of the content in the current view, (column 13, line 24), i.e. "scrolling" or "flying" to different lateral "relative viewing positions" to display a different lateral portion of the map is also provided by the present invention. The

examiner would also interpret this as having the functionality to “fly to” an adjacent position and then to “fly back”.

29. Regarding claim 32, Herigstad teaches the method of claim 25 as described above. However Herigstad does not explicitly teach the various zooming and shifting methods as recited in claim 32. Delorme teaches the following:

zooming in to one segment;

zooming out to an overview of content(column 6, row 63), i.e. to cause the display monitor to “zoom” to a higher or lower position to display a greater or smaller geographical area;

shifting from a first view of a first segment to a second view of a first segment, (column 4, line 34), i.e. digital maps can be easily and accurately scaled, rotated and drawn at any perspective view point. The examiner interprets a rotation to be a different view of the same segment;

shifting from a first segment to a second segment, the shifting comprises:
shifting from a current to a new view(i.e. fly to), shifting from a current view to a previous view(i.e. fly back), shifting from a current view to the overview of the content(i.e. zoom out) , (column 13, line 24), i.e. “scrolling” or “flying” to different lateral “relative viewing positions” to display a different lateral portion of the map is also provided by the present invention.

Art Unit: 2109

30. Regarding claim 33, Herigstad and Delorme teach the method of claim 32 as described above. Delorme further teaches:

the overview of the content(i.e. maximum zoom out) comprises displaying substantially all segments of the content on the device screen, (column 9, line 33), i.e. the digital computer has retrieved relevant mapping information from the digital mapping database, and has produced a monitor display of digital map substantially corresponding to the flat projection of the earth's surface. The examiner interprets this "overall" view of the earth's surface to "display all segments of content" and can be viewed at any level by recursively zooming out.

31. Regarding claim 34, Herigstad and Delorme teach the method of claim 32 as described above. Delorme further teaches:

shifting from a first segment to a second segment is temporary when a key corresponding to the second view is pressed and held for a period of time and then released, (column 13, line 24), i.e. "scrolling" or "flying" to different lateral "relative viewing positions" to display a different lateral portion of the map is also provided by the present invention. The examiner would like to further note that Delorme's use of pressing a key to perform such operations encompasses applicant's use of "pressed and held". The applicant's further use of "temporary" is interpreted to mean a user then "flying back" to a previous segment.

32. Regarding claim 35, Herigstad and Delorme teach the method of claim 32 as described above. Delorme further teaches:

The first view is at a first zoom level and the second view is at a second zoom level, (column 13, line 27), i.e. instead of adding or removing filename characters as in a change of resolution(i.e. zoom), in this instance, the mapping system must be programmed to keep track of filenames of current position(i.e. zoom level) and also, the orderly arrangement of filenames so that the appropriate filenames corresponding to the desired lateral position can be determined. As an example if the user desired to scroll to the right border. The examiner interprets applicant's use of "first and second" zoom levels to encompass said first zoom level and said second zoom level to have equal values as discussed in Delorme.

33. Regarding claim 36, Herigstad and Delorme teach the method of claim 32 as described above. Delorme further teaches:

maintaining a first segment zoom level when shifting from the first segment to the second segment, (column 13, line 27), i.e. instead of adding or removing filename characters as in a change of resolution(i.e. zoom), in this instance, the mapping system must be programmed to keep track of filenames of current position(i.e. zoom level) and also, the orderly arrangement of filenames so that the appropriate filenames corresponding to the desired lateral position can be determined. As an example if the user desired to scroll to the right border.

34. Claims 18 & 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Application Publication number 07-270172, Hiroshi et al., hereinafter Hiroshi.

35. Regarding claim 18, Herigstad teaches the system of claim 1 as described above. However Hiroshi does not explicitly teach the overview map superimposed on a child, as recited in claim 18. Hiroshi teaches:

a tracking component that generates a relatively very small and schematic overview map which is superimposed in outline form in a corner of the display screen when a child view is displayed, (pg. 4, paragraph [0024]), i.e. its enlarged drawing (the screen which displayed this map is called "parent screen") in addition, the map (the screen which displayed this broader-based map is called "child screen"). The examiner would like to further note that drawing one clearly shows a smaller "parent" map that is superimposed on the bottom right corner of the "child" map.

It would have been obvious to one skilled in the art at the time the invention was made to modify the superimposing of parent in child displays of Herigstad with that of Hiroshi. One skilled in the art would be motivated to make such modification for reasons as described by Hiroshi in his section [Effect of Invention], i.e. a user can grasp at a glance which neighborhood the map currently displayed on the main window is in based on a broader-based map.

36. Regarding claim 19, Herigstad and Hiroshi teach the system of claim 18 as described above. Hiroshi further teaches:

the tracking component further generates a smaller rectangle with the overview map to indicate a relative size and location of the child view within a context of the child view's parent view, (pg. 4, paragraph [0026]), i.e. the frame 20 in which the parent screen-display range is shown is expressed as a child screen. This frame can be seen and a user can grasp which neighborhood of a child screen the parent screen shows.

37. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herigstad in view of Hiroshi as applied to claim 19 above, and further in view of United States Patent number 6,202,026, Nimura et al., hereinafter Nimura.

38. Regarding claim 20, Herigstad and Hiroshi teach the system of claim 19 as described above. However Hiroshi does not explicitly teach the gradation method as recited in claim 20. Nimura teaches the following:

a subtle but noticeable gradation(i.e. dashed line) is applied around a perimeter of the parent's view to provide further perspective regarding to the child view with respect to the parent's view. As shown in Nimura's figure 8A and 8B, Nimura uses a dashed line square in the parents view to show where the child's view pertains.

It would have been obvious to one skilled in the art at the time the invention was made, to modify the gradation of the square shown in the parent view of Herigstad and Hiroshi with that of Nimura. One skilled in the art would have been motivated to make

such modifications because changing the patterns of lines is a well known capability of computer mapping systems and such a change would help to better designate where in the parent view the child view lies.

39. Claim 21 & 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herigstad in view of United States Patent number 5,906,654, Sato.

40. Regarding claim 21, Herigstad teaches the system of claim 1 as described above. However Herigstad does not explicitly teach the traffic monitoring method as recited in claim 21. Sato teaches the following:

the content comprises a real-time traffic monitoring application comprising color-coded roadways and highways to indicate traffic status, (column 2, line 32), i.e. a navigation apparatus using the ATIS displays a congested road, for example, in red in the map image.

It would have been obvious to one skilled in the art at the time the invention was made to combine the traffic display means of Herigstad with that of Sato. One skilled in the art would have been motivated to combine such teachings because a traveler may wish to avoid such traffic and the displaying of different color roads is easy for a user to delineate from others.

Art Unit: 2109

41. Regarding claim 22, Herigstad teaches the system of claim 21 as described above. However Herigstad does not explicitly teach the user-defined route method as recited in claim 22. Sato teaches the following:

the content further comprising user-defined routes, (column 1, line 66), i.e. when a user selects a destination in a category of places.

42. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herigstad.

43. Regarding claim 24, Herigstad teaches the system of claim 23 as described above, Herigstad further teaches:

the one or more defined areas comprises advertisement(i.e. service options) panes, (column 7, row 39), i.e. Fig. 8 depicts an example of a screen display 160 that is shown on display 30 of a mobile phone 12 where each of the regions is associated with a given service option.

Herigstad does not explicitly teach the method of using nonsegmented space for advertisement purposes. However it would have been obvious to one skilled in the art at the time the invention was made, to display such advertisements in said unused space. Herigstad does show that certain service options, which examiner translates as advertisements, can be displayed in segments. One would motivated to combine said service options with said unused space to make more efficient use of display space by displaying the service options in said unused space when said space exists.

44. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herigstad in view of United States Patent Application Publication number 2003/0038787, Nishiyama.

45. Regarding claim 39, Herigstad teaches the method of claim 25 as described above. However Herigstad does not explicitly teach the using of non-numeric keys being mapped to functions as recited in claim 39. Nishiyama teaches the following:

the non-numeric keys mapped to a functionality that varies according to one of the content or application supporting the content, (pg. 4, paragraph [0074]), i.e. each of keys "*" and "#" provided in addition to the above ten numeric keys is adapted to another function of operating the image. In the example, the key "8" is adapted to a rotation function for changing the orientation of the image displayed on the display.

It would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the functionality of non-numeric keys of Herigstad with that of Nishiyama. One skilled in the art would be motivated to make such modifications because when dealing with navigating maps for example on cellular phones, there are a limited number of keys, and it is beneficial to utilize every key present to provide some functionality to the user.

Conclusion

46. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 7,075,513 discusses zooming and panning a display screen in a portable device;

US 6,836,723 discusses a method of navigating a map using a minimal number of keys;

US 2004/0051695 discusses a portable device capable of multiple tasks comprising zooming and scrolling;

US 2003/0107555 discusses another method of optimizing a keypad of limited keys with the use of function keys;

US 2003/0040341 discusses another method of separating an image, on a portable device, into several sections and mapping said sections to specific keys.

47. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory A. DiStefano whose telephone number is (571)270-1644. The examiner can normally be reached on 7:30am-5:00pm Mon.-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on (571)272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

G.A.D.
2/7/2007


XIAO WU
SUPERVISORY PATENT EXAMINER